

## Business Modeling Analysis

BA562  
Fall, 2020

**Instructor:** Kihwan Nam (남기환), Ph.D.  
**Classroom:**  
**Class Hours:** Tue: 19:00~22:00  
**Instructor Phone:**  
**Instructor Email:** namkh@kaist.ac.kr  
**Office Hours:** before/after Tue class by appointment  
**Teaching Assistant:** Nohyeon Seong  
**TA Email:** nyseong@kaist.ac.kr

### **Course Introduction and Objectives:**

In this course, we study and discuss a variety of data mining (DM) techniques in the field of Technology Management. Rather than focusing on specific equations and algorithms of DM techniques, this course will look more at basic concepts of DM techniques and their applications in decision making. This course consists of two modules: the Database Modeling and the second Business Analytics with Data Mining.

### **Course Format**

The course will consist of discussion, case analyses, group project and presentation. Students are encouraged to participate in class activities, including case discussion and presentation.

### **Course Materials:**

**There is no textbook required.**  
**Lecture materials will be provided weekly.**

## Grading

Your final grade for this class will be based on the following weighted point allocation:

<b>Criteria</b>	<b>Unit</b>	<b>Weight</b>
Attendance and participation (AP)	Individual	20 %
Homework	Individual	20 %
In-class exercise	Individual	10 %
In-class exams	Individual	20 %
Term Project	Team	30 %
<b>TOTAL</b>		<b>100%</b>

Grades will be curved.

You will get **F** in this course in case of one of the followings:

- When your total point is less than 50%.
- When you are involved in any plagiarism and cheating
- When you are absent from four or more sessions

**Attendance and Participation (AP):** Class attendance is required of all students. Active participation in the class is an essential part of the coursework. In addition, you cannot contribute to the class discussion if you are not in class. In class discussion, your participation will help you get these points. Absence from class will discount these points. The maximum points that you can earn for AP is 100, which consists of 70 points of attendance and 30 of participation. I will cut down 5 points per your absence from 70 for the attendance point. At the end of course, I'll evaluate your participation and give individual students participation point from zero to 30. If a student is unable to attend a class due to some conditions, such as a sickness, or learning disability, please notify me prior class.

**Exams:** There will be a mid-term and a final exam. The exams are closed-book. They contain multiple choice and short answers. Makeup exams will not be given unless you have legitimate excuses. The tests will assess your mastery over the terminology and concepts that are covered in class and assignments **ONLY**.

**In-class exercises:** You will have an in-class exercise. This is assigned by individual or team.

**Term project:** This is a team assignment. The purpose of the project assignments is to have an experience to analyze and design real business. The teams presenting in class should submit their slides a day before the class.

### **Tentative Class schedule**

The following is a tentative class schedule and subject to change. Please check the Blackboard for the up-to-date schedule.

<b>Week</b>	<b>Date</b>	<b>Topics</b>
1	9/1	Course Introduction
2	9/8	Introduction to Big Data and Business Analytics
3	9/15	ER Model & SQL (1)
4	9/22	ER Model & SQL (2)
5	9/29	Basic Statistics and Data Visualization
6	10/6	Dimension reduction
7	10/13	Cluster Analysis
8	10/20	Mid Term Exam
9	10/27	Regression Analysis
10	11/3	Decision Tree
11	11/10	Neural Network
12	11/17	Text Mining (1)
13	11/24	Text Mining (2)
14	12/1	Term project presentation
15	12/8	
		Final Review
16	12/15	Final Exam